

ABSTRACT

This invention aims at providing a low-pressure mercury lamp having an improved luminous efficiency while maintaining the compactness and long life of the arc tube. This lamp comprises an arc tube formed by bending a glass tube. This arc tube is formed into a double-spiral structure comprising: a turning part located in substantially the midsection from both ends of the glass tube; a first spiral part starting from one of the ends and spiraling around the pivotal axis to reach the turning part; and a second spiral part starting from the turning part and spiraling around the pivotal axis to the other end. The glass tube has a circular shape in cross section with 7.4 mm inner diameter. This low-pressure mercury lamp is a 12 W lamp alternative to a 60 W incandescent lamp, and the bulb wall loading under steady state illumination is set at 0.103 W/cm^2 .